Job Specific Environmental Awareness Training – Lead Working

LS-ENV-LEAD 050302 K:\erothman\EMS\Lead\tr-lead.doc

Course Objective: Cutting or machining lead in the NSLS machine shops needs to be carefully controlled to prevent exposures to personnel and to ensure that lead wastes are properly handled. This training is provided to ensure that machining of lead is conducted in compliance with environmental and safety requirements. The contents of this training have been extracted from the NSLS PRM and BNL Subject Area.

Description of Significant Environmental Aspect: Machine shop operations involving lead create hazardous wastes other than the lead itself, such as personal protective equipment (e.g. gloves), machine coverings, mop water, oil, and oily rags that become contaminated with lead during the process. These wastes must be properly handled to ensure compliance with federal regulations.

Training Requirements: Managers of shops involved in the machining of lead are required to read and sign this form and to take RCRA Hazardous Waste Generator training. Shop users who machine lead are required to read and sign this form. All personnel involved in lead handling must complete the BNL Lead in the Workplace course.

Operational Controls: ALL LEAD BRICK CUTTING MUST BE DONE IN THE MACHINE SHOP IN BLDG. 726 OR THE USER MACHINE SHOP IN BLDG. 725, using band saws in those shops designated for lead cutting. Contact the Shop Manager before starting any lead cutting in one of the shops. Exceptions are allowed and shall be covered by a Work Permit.

- A coarse-toothed blade operating at low speed is best for minimizing airborne lead during cutting. Operations of less than 2 hours in length do not require respirators or other ventilation controls
- Personnel cutting lead must wear protective clothing and gloves.
- The band saw must be cleared of debris before cutting any lead to isolate the lead scrap and shavings from other metals.
- Oil or oily rags contaminated with lead are RCRA hazardous waste and must be labeled with a red hazardous waste label.
- Waste from the shop vacuum used to pick-up lead chips and lead dust shall be managed as a hazardous waste when the vacuum is emptied. Only HEPA filtered vacuums should be used for clean-up of lead or other toxic metals.
- Lead-contaminated clothing and surface-covering materials must be disposed with attention to the amount of lead present. Materials that do not have visible gross lead contamination may be disposed in the routine trash. Materials that are obviously lead contaminated must be disposed through the BNL Waste Management Division as RCRA Hazardous Waste. If there is uncertainty about the amount of lead contamination, dispose of the material through Hazardous Waste Management.
- Lead scrap is recycled through BNL Central Shops. All lead scrap should be placed in the plastic container labeled “Lead Scrap for Recycling” located in the 725 and 726 machine shops. This collection is for lead only; be careful not to place any other materials in the lead container. Close the container when done.
- Water used for mopping the floor when Lead Work Areas are cleaned may be discarded in slop sinks that drain to BNL sanitary water system. Water used to mop around and under a band saw used for cutting must be collected and analyzed before disposal.

Your Role and Responsibility: You are responsible for the safe machining of lead and the proper management of your waste. If you are ever in doubt regarding the proper course of action, contact your supervision or a member of the NSLS ESH Staff for advice.

Potential Regulatory and Environmental Impacts: Mismanagement of waste can result in violations of RCRA hazardous waste regulations. BNL is subject to fines and penalties for such violations, and is responsible for the clean-up costs associated with any required remediation.

Pollution Prevention and Waste Minimization: Make sure that all scrap lead you produce is collected and deposit it in the proper container for recycling. Make every effort to prevent the generation waste oils and oily rags that are contaminated with lead.

Print Name	Sign Name	Life Number	Date

Signature conveys that you have read and understand this information.

NSLS Environmental Management Training

Background Environmental and hazardous waste management regulations are among the most sensitive and visible issues in the American society. At BNL, these regulations are indisputably the most sensitive topic within the ESH arena since environmental releases and the perception of poor waste handling practices were at the heart of the AUI discharge by DOE and in the development of the strong management emphasis on these issues. In light of the high visibility and sensitivity to these issues, BNL management committed to the development of an Environmental Management Program that met all the requirements of ISO 14001, an international organization which has adopted standards for many types of programs, including environmental management.

A key issue within ISO 14001 is the identification of all activities at a facility that are associated with significant environmental aspects. All activities involving a significant aspect are to be managed and controlled to ensure that no adverse environmental impact results. As a part of that program, all personnel whose work involves a significant environmental aspect[1] will be provided specific environmental awareness training relating to their duties.

There are several work activities at NSLS that are involved with our facilities' significant environmental aspects. These activities are:

- Regeneration of process water mixed bed deionizing
- Machine shop operations
- Photographic dark room operations
- Vacuum pump maintenance
- Electrical/mechanical assembly
- Experimental Program
- 90 Day/Satellite Area Operation
- Silicon Crystal etching

For each of these activities, job specific training has been developed to ensure knowledge of applicable requirements that should be followed to properly control the significant environmental aspects.

[1] Significant environmental aspects have been defined at BNL as involving any of the following issues:

- Generation of any amount of industrial, hazardous, radioactive, mixed, or medical wastes
- Air or liquid effluents or emissions exceeding defined values
- Storage or use of chemicals or radioactive material above certain thresholds